held at Middlebury College, September 13-16, 1990. The Symposium, which seeks to develop "an ecological world view exploring the values inherent in nature, the interrelationship of human culture and nature, and the interdependence of the individual and the whole—drawing on religion, philosophy, literature, art, and science," has been planned and organized by **Steven Rockefeller,** Professor of Religion, **Barbara Bellows,** Assistant Professor of History, **John Elder,** Professor of English, and **Stephen Trombulak,** Director of the Program in Environmental Studies. All have agreed to make a presentation in the Alumni College XV Miscellany series of lectures. An international art exhibit will run concurrently with the Symposium. Not all of the collection will have been assembled by September 1. Nevertheless, Richard Saunders, Curator and Director of the Johnson Art Gallery, will open the Gallery and give us a "guided tour" of what is in place at the time.

Andrea Olsen, Assistant Professor of Dance, will offer a two-session **Personal Environment** sequence: **I. Experiential Anatomy Class**
II. Reading from Bodystories

Sallie Sheldon, Assistant Professor of Biology, will take us out of doors to discover **"Patterns of Distributions of Organisms"**

We welcome David Littlefield as the new Director of Alumni College.

ALUMNI COLLEGE XV

August 29 - September 2, 1990

The cost, covering 12 meals, four nights of lodging, tuition and books is $375/person, or $700/couple, payable upon registration. The cost for younger alumni ('75-'89) is $350/person or $650/ couple.

Classes will be held at the Bread Loaf Campus where participants will be housed and meals served.

Opportunities for tennis, swimming, hiking, etc., will be offered at Bread Loaf. The College Golf Course is also available (greens fees are reasonable).

If you wish to attend Alumni College, please complete the reservation form below and return it with full payment by August 10.

ALUMNI OFFICE - FOREST HALL
MIDDLEBURY COLLEGE
MIDDLEBURY VT 05753-6121

ALUMNI COLLEGE XV

August 29-September 2, 1990

I/We will attend Alumni College XV.

Please reserve space for me ☐, my spouse/guest ☐

Enclosed is my payment in the amount of $ _____

Name _____ Class____
☐ Parent ☐ Friend

Address _____

_____

Phone _____ Spouse's Name_____

My topic choice is: 1 2 3 4 5 6

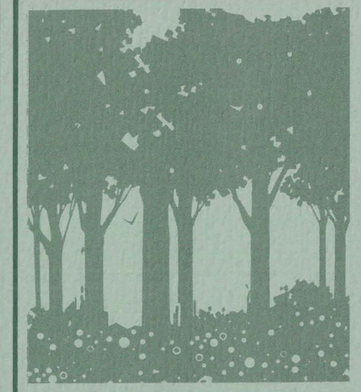
My spouse's choice is: 1 2 3 4 5 6

If my choice is unavailable, I would be interested in: 1 2 3 4 5 6

If my spouse's choice is unavailable, he/she would be interested in: 1 2 3 4 5 6

Middlebury College
MIDDLEBURY, VERMONT 05753

Alumni College XV



Alumni College XV

Aug. 29-Sept. 2 1990

Middlebury College

1 Gorbachev and the East European Revolution

1989 will be remembered as the year when "people power" dissolved Communist regimes in East Europe. This course examines the roots of the East European revolution, the balance of forces after the 1990 elections, and the prospects for a new Europe without the Iron Curtain. Social, political, and economic incentives and barriers to change will be considered by the instructor and his guest lecturer.

Michael Kraus, Associate Professor of Political Science, joined Middlebury's faculty in 1980. He was a Ford Foundation Fellow at the Kennedy School at Harvard in 1982-1983 and a Senior Fellow at the Harriman Institute of Advanced Soviet Studies, Columbia University, 1986-87. He is (with Ronald Liebowitz of the Geography Department) the editor of **Perestroika and East-West Economic Relations: Prospects for the 1990's** (New York University Press, 1990).

Guest Lecturer: Catherine Sokil, Instructor in Economics, will talk on "The East European Economic Revolution".

2 A Human Approach to the History of Mathematics

Mathematics and society—what does one have to do with the other? Is mathematics a process of discovery or one of creation? This course will approach mathematics, the "pure" science, as a human activity, by looking at the connections between mathematics and who we are as people, our environment, our beliefs.

We will begin by looking at the individuals who practiced mathematics. Who were they, what were their lives like, why did they choose to pursue mathematics, how were they received by their communities and society at large? Who were the women in mathematics, why were there so few? In what ways was mathematical research supported?

After looking at the lives of individual mathematicians, we will expand our focus and consider how different early cultures approached mathematics. Is mathematics such a universal language or activity that early Babylonian mathematics is the same as Chinese or African mathematics? What are the similarities? What are the differences? How do the values of the culture influence the kind of mathematics that is done?

During the course I will introduce some of the major turning points in mathematics—the fascinating moments when what seems impossible becomes normal. We will also see how mathematics, which for centuries represented a kind of absolute truth, is now seen as resting on a foundation which is not rooted in certainty.

The course will not assume any background in mathematics. I hope to draw on your mathematical life stories (traumas and triumphs) in exploring this wonderfully rich field.

CLAUDIA HENRION, Assistant Professor of Mathematics, joined the Middlebury faculty in 1985, after earning a B.A./B.S. in Mathematics and Philosophy from Stanford University and a Ph.D. from Dartmouth. Her work has been in Logic and Set Theory, and her interests in the foundations of mathematics have extended to the history of mathematics and gender and science. She is currently working on a book on women in mathematics which is being funded by grants from the U.S. Department of Education and the American Association of University Women.

3 Beginnings: A Poet and a Physicist Ponder Creation

Since the earliest times, we humans have wondered about our own origin and that of the universe of which we are a part. Responding to that wonder, every human culture has developed its own stories of the creation. In the modern era, scientists have had the audacity to question the universe itself about its origins, and to develop a new creation story based not in myth but in scientific observation. How do the early myths of creation compare with the new scientific viewpoint? Are they fundamentally at odds or do they represent different ways of looking at the same basic truths? What does each have to tell us about our own place in the universe?

In this course we will compare and contrast the myths and the science of creation, focusing especially on the biblical account in the Book of Genesis and on the contemporary cosmological rendition known as the Big Bang Theory. We will examine a group of selected poems that interpret the biblical myth and another group of poems that respond to discoveries about the physical universe as achieved by modern science. The course will combine literary criticism, presentations of scientific fact, and lively discussion. Participants will join a poet and an astrophysicist in the search, from our very different perspectives, for the truth about our common origins.

Robert Pack, Axinn Professor of Literature at Middlebury College, is a poet and the Director of the Bread Loaf Writers' Conference. A former Fulbright Fellow, recipient of National Institute of Arts and Letters and Borestone Mountain Poetry Awards, his books of poetry are: **The Irony of Joy; A Stranger's Privilege; Guarded by Women; Nothing but Light; Home from the Cemetery; Keeping Watch; Waking to My Name: New and Selected Poems; Faces in a Single Tree: A Cycle of Monologues**; and **Clayfeld Rejoices, Clayfeld Laments**. He has published four books of poetry for children, a critical study of Wallace Stevens, and **Affirming Limits**, a collection of essays. His newest sequence of poems, **Before it Vanishes**, was published in 1989 and reflects on discoveries in contemporary physics.

Richard Wolfson is Professor of Physics and Chairperson of Middlebury's Physics Department. As a researcher, he is an astrophysicist specializing in study of the Sun; as a teacher, he is particularly interested in making science intelligible for nonscientists. The author of numerous articles in scientific journals, he has also published for the nonspecialist in **Scientific American** and elsewhere. His textbook, **Physics**, and its companion, **Physics Extended With Modern Physics**, are used in colleges and universities throughout the world. His new book, **A Citizens' Guide to Nuclear Technology**, will be published late this year. Wolfson has previously taught Alumni College courses on astrophysics and on solar energy.

4 Labors of Love: The Experience and Organization of Care

Is it natural for women to care for others? Should women's culture be defined in terms of nurturing? Is it possible to find satisfaction in occupations devoted to caring? These are some of the questions we will examine in this course. We will first consider theoretical issues embedded in the notion of caring as an essential part of women's role and identity (e.g., Chodorow, Gilligan, Friedan, and Firestone). We will then draw on a series of case studies to illustrate the reality of care giving in both the public and private spheres. Literary treatments of these issues will be used to round out our enquiry.

Margaret K. Nelson is Professor of Sociology-Anthropology. She received her B.A. from Swarthmore College and her Ph.D. from Columbia University. She has been at Middlebury College since 1975. She has conducted research on childbirth, and on school teaching, and day care as occupations for women. She is the author of **Negotiated Care: The Experience of Family Day Care Providers** and co-editor of **Circles of Care: Work and Identity in Women's Lives.**

Katherine Sonderegger is Visiting Assistant Professor of Religion at Middlebury College. She is a Smith College graduate, and holds advanced degrees from Yale University Divinity School and Brown University, department of Religious Studies. Her field of study is modern western religious thought.

5 Singing Detectives: Investigating Choral Music

There is more than meets the eye or ear in experiencing choral singing. The music reveals hidden clues to its performance; an exciting choreography exists under cover of the notated score.

Choral works by Schutz, Telemann, Purcell, Faure, Parry, Argento, and Rutter will be examined in daily rehearsals. The entire Bread Loaf community will be invited to our drawing room on Saturday afternoon to consider the evidence of our testimony.

Packets of music will be sent to registrants. A moderate degree of pre-meditation is assumed.

Emory Fanning is the first Fletcher Professor in the Arts at Middlebury. He has been a member of the Music Department since 1967, teaching courses in history, theory, and performance. This summer he will lecture and perform on the faculty of the International Organ Academy in Paris. The College Choir, which he conducts, has toured widely and has been seen and heard throughout the U.S. yearly on the Public Television special, "Christmas in Vermont." This is his third Alumni College course.

6 A Miscellany

A Symposium: Spirit and Nature: Religion, Ethics, and the Environmental Crisis, will be